

5 As enclosed to IPER

ART 34 AMDT

We claim:-

10 1. In a process for preparing alkynediols by reacting ketones with acetylenic hydrocarbons selected from the group consisting of acetylene and alkynemonool in an organic solvent in the presence of a base comprising potassium alkoxides of primary and/or secondary alcohols to form adducts of alkynemonools and/or alkynediols and said base which precipitate from the reaction mixture, the improvement which comprises, using as acetylenic hydrocarbon acetylene in the ratio of ketone to acetylene from 1,9 to 2,1 : 1 and the ratio of potassium alkoxide to ketone is within the range from 0,9 to 2,1 : 1 and using as acetylenic hydrocarbon alkynemonool in the ratio of alkynemonool to ketone from 1 : 0,8 to 1,2 and the ratio of potassium alkoxide to ketone is within the range from 1,5 to 2,2 : 1, so as to produce gellike adducts having a spherical surface, whereby the reaction mixture remains stirrable during the entire reaction.

25 2. A process as claimed in claim 1, wherein, using as acetylenic hydrocarbon acetylene, it is used in a stoichiometric amount with regard to the ketone and the ratio of potassium alkoxide to ketone is within the range from 1 : 1 to 1,5 : 1.

3. A process as claimed in claim 2, wherein the ratio of potassium alkoxide to ketone is within the range from 1.1 : 1 to 1.3 : 1.

30 4. A process as claimed in claim 1, wherein, using as acetylenic hydrocarbon alkynemonool the ratio of alkynemonool to ketone is within the range from 1 : 1 and the ratio of potassium alkoxide to ketone is within the range from 1,9 : 1 to 2,1 : 1.

35 5. A process as claimed in any of claims 1 to 4, wherein ketones selected from acetone, methyl isobutyl ketone and cyclohexanone are used.

40 6. A process as claimed in claim 5, wherein acetone is used as ketone.

- 5 7. A process as claimed in any of claims 1 to 6, wherein hydrocarbons are used as solvents.
- Q3 8. A process as claimed in any of claims 1 to 7, wherein the potassium alkoxides used are potassium butoxides.